



Patent

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:	)	
	)	
Wachel	)	Examiner: Jamal, Alexander
	)	
Application No: 09/737,999	)	Art Unit: 2643
	)	
Filed: December 14, 2000	)	
	)	
For: <u>Passive DSL Splitting</u>	)	

Mail Stop Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**  
**IN SUPPORT OF APPELLANT'S APPEAL**  
**TO THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Sir:

Applicant (hereinafter "Appellant") hereby submits this Brief in support of its appeal from a final decision by the Examiner, mailed January 12, 2006, in the above-captioned case. Appellant respectfully requests consideration of this appeal by the Board of Patent Appeals and Interferences (hereinafter "Board") for allowance of the above-captioned patent application.

An oral hearing is not desired.

06/16/2006 MAHMED1 00000013 09737999

01 FC:1402

500.00 DP

## TABLE OF CONTENTS

I.	REAL PARTY IN INTEREST.....	3
II.	RELATED APPEALS AND INTERFERENCES.....	3
III.	STATUS OF THE CLAIMS.....	3
IV.	STATUS OF AMENDMENTS.....	3
V.	SUMMARY OF THE INVENTION.....	4
VI.	GROUND OF REJECTION TO BE REVIEWED ON APPEAL.....	5
VII.	ARGUMENT.....	6
VIII.	CONCLUSION .....	12
IX.	APPENDIX OF CLAIMS.....	i
X.	EVIDENCE APPENDIX.....	v
XI.	RELATED PROCEEDINGS APPENDIX.....	vi

**I. REAL PARTY IN INTEREST**

The invention is assigned to Intel Corporation, 2200 Mission College Boulevard, Santa Clara, California 95052, USA.

**II. RELATED APPEALS AND INTERFERENCES**

To the best of Appellant's knowledge, there are no appeals or interferences related to the present appeal that will directly affect, be directly affected by, or have a bearing on the Board's decision.

**III. STATUS OF THE CLAIMS**

Claims 1-16 are currently pending in the above-referenced application. No claims have been allowed. Claims 1-16 are the subject of this appeal.

**IV. STATUS OF AMENDMENTS**

In response to the Final Office Action, mailed on January 12, 2006, rejecting claims 1-16, Appellant timely a Notice of Appeal on April 12, 2006.

A copy of all claims on appeal is attached hereto as an Appendix of Claims.

## **V. SUMMARY OF THE INVENTION**

According to one embodiment, a method of providing a digital subscriber line service and a plain old telephone service is disclosed. The method includes connecting a communication I/O line to a chassis, providing the digital subscriber line service onto the communication I/O line using a first circuit board in the chassis, providing the plain old telephone service on the communication I/O line using a second circuit board in the chassis and splitting the digital subscriber line service from the plain old telephone service via a third circuit board on the chassis having passive components. The splitting occurs within the chassis without requiring a splitter external to the chassis at a customer premises. See Figure 3 and Specification at page 4, lines 1-20.

According to another embodiment, a method of splitting digital subscriber line (DSL) signals and subscriber line interface card (SLIC) signals is disclosed. The method includes providing the DSL signals to a first circuit board, providing the SLIC signals to a second circuit board and using passive components on a third circuit board to separate the DSL signals and the SLIC signals. The passive components separate the DSL signals and the SLIC signals within a chassis without requiring a splitter external to the chassis at a customer premises. See Figure 3 and Specification at page 4, lines 1-20.

In yet a further embodiment, a method of handling digital subscriber line (DSL) signals and subscriber line interface card (SLIC) signals is disclosed. The method includes receiving the DSL signals and the SLIC signals, separating the DSL signals from the signals in one more transition cards having primarily passive components, providing the DSL signals to a first hot-swappable circuit board and providing the SLIC signals to a second hot-swappable circuit board. See Figure 3 and Specification at page 4, lines 1-20.

**VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over De Bruycker et al. (U.S. Patent No. 6,277,219) (hereinafter “*De Bruycker*”) in view of Alaimo et al. (U.S. Patent No. 6,614,811) (hereinafter “*Alaimo*”), and further in view of Williamson (U.S. Patent No. 6,477,249) (hereinafter “*Williamson*”).

## VII. ARGUMENTS

### 1. THE PENDING CLAIMS WERE IMPROPERLY REJECTED UNDER 35 U.S.C. § 103(a) BECAUSE THE COMBINATION OF *DE BRUYCKER*, *ALAIMO* AND *WILLIAMSON* DOES NOT DISCLOSE OR SUGGEST DOES NOT DISCLOSE OR SUGGEST EACH AND EVERY FEATURE OF THE PENDING CLAIMS

Appellant respectfully submits that the combination of *De Bruycker*, *Alaimo* and *Williamson* fails to disclose or suggest the claimed invention for the reasons set forth below. As the Honorable Board is well aware, in order to establish a *prima facie* case of obviousness:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." (Emphasis added). *In re Vaech*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Manual of Patent Examining Procedure (MPEP), 8<sup>th</sup> Edition, Revision 2, May 2004, §2143.

- (A) Claims 1-13 were improperly rejected because the combination of *De Bruycker*, *Alaimo* and *Williamson* does not disclose or suggest splitting a digital subscriber line service from a plain old telephone service via a circuit board, wherein the splitting occurs within a chassis without requiring a splitter external to the chassis at a customer premises

Claims 1-13 are not obvious in view of *De Bruycker*, *Alaimo* and *Williamson* under 35 U.S.C. § 103(a). For example, Appellant's claim 1 recites:

A method of providing a digital subscriber line service and a plain old telephone service comprising:  
connecting a communication I/O line to a chassis;  
providing the digital subscriber line service onto the communication I/O line using a first circuit board in the chassis;  
providing the plain old telephone service on the communication I/O line using a second circuit board in the chassis; and  
splitting the digital subscriber line service from the plain old telephone service via a third circuit board on the chassis having passive components, said splitting occurring within the chassis without requiring a splitter external to the chassis at a customer premises.

Appellant's claim 6 recites:

A method of splitting digital subscriber line (DSL) signals and subscriber line interface card (SLIC) signals comprising:  
providing the DSL signals to a first circuit board;  
and  
providing the SLIC signals to a second circuit board;  
using passive components on a third circuit board to separate the DSL signals and the SLIC signals; wherein said passive components separate the DSL signals and the SLIC signals within a chassis without requiring a splitter external to the chassis at a customer premises.

*De Bruycker* discloses an ADSL/DSL (Very High Speed DSL) splitter integrated in a remote terminal of a pair gain system or in the NT1 (Network Termination 1) of an ISDN BA (Basic Access). See *De Bruycker* at Abstract. *Alaimo* discloses a modular multi-service telecommunication access device that includes a controller card and card slots for six peripheral cards and a power supply. Any of several types of peripheral cards may be placed in a slot. See *Alaimo* at Abstract.

*Williamson* discloses a splitter that separates telephony traffic (POTS) from digital subscriber line (ADSL) traffic occupying a higher frequency band. The splitter

includes a low-pass filter for passing the telephony traffic, the low-pass filter being operable to vary its filtering response between a first low-pass response for use during telephony speech traffic, and a second, more restrictive, low-pass response for use during at least part of the time that telephony signaling traffic is present. See *Williams* at Abstract.

Appellant submits that any combination of *De Bruycker*, *Alaimo* and *Williamson* fail to disclose or suggest splitting a digital subscriber line service from a plain old telephone service via a circuit board wherein the splitting occurs within a chassis without requiring a splitter external to the chassis at a customer premises. For instance, *De Bruycker* does not disclose or suggest such a feature. In fact, the Final Office Action admits that *De Bruycker* does not specify using circuit boards. See Final Office Action at Page 3, lines 9-12.

Further, *Alaimo* does not disclose or suggest splitting a digital subscriber line service from a plain old telephone service via a circuit board wherein the splitting occurs within a chassis without requiring a splitter external to the chassis at a customer premises. Instead, *Alaimo* discloses peripheral cards that may be inserted into a telecommunication device. Nevertheless, there is no disclosure or suggestion in *Alaimo* of any of the peripheral cards operating as a splitter.

Moreover, *Williamson* does not disclose or suggest splitting a digital subscriber line service from a plain old telephone service via a circuit board wherein the splitting occurs within a chassis without requiring a splitter external to the chassis at a customer premises. *Williamson* discloses a splitter, but there is no disclosure or suggestion of the splitter being implemented on a circuit board with the splitting occurring within a chassis



without requiring a splitter external to the chassis at a customer premises. Since *De Bruycker, Alaimo* and *Williamson* all fail to disclose or suggest splitting a digital subscriber line service from a plain old telephone service via a circuit board wherein the splitting occurs within a chassis without requiring a splitter external to the chassis at a customer premises, any combination of *De Bruycker, Alaimo* and *Williamson* would also not disclose or suggest such a feature.

(B) **Claims 14-16 were improperly rejected because the combination of *De Bruycker, Alaimo* and *Williamson* does not disclose or suggest providing separated DSL signals to a first hot-swappable circuit board and providing separated SLIC signals to a second hot-swappable circuit board**

Claims 14-16 are not obvious in view of *De Bruycker, Alaimo* and *Williamson* under 35 U.S.C. § 103(a). For example, Appellant's claim 14 recites:

A method of handling digital subscriber line (DSL) signals and subscriber line interface card (SLIC) signals comprising:

receiving the DSL signals and the SLIC signals;

separating the DSL signals from the signals in one more transition cards having primarily passive components;

providing the DSL signals to a first hot-swappable circuit board; and

providing the SLIC signals to a second hot-swappable circuit board.

Appellant submits that claims 14-16 are patentable over the combination of *De Bruycker, Alaimo* and *Williamson* for the reasons stated above with reference to section (A). In addition, each of *De Bruycker, Alaimo* and *Williamson* fails to disclose or suggest providing separated DSL signals to a first hot-swappable circuit board and providing separated SLIC signals to a second hot-swappable circuit board. Since *De Bruycker, Alaimo* and *Williamson* all fail to disclose or suggest providing separated DSL signals to

a first hot-swappable circuit board and providing separated SLIC signals to a second hot-swappable circuit board, any combination of *De Bruycker*, *Alaimo* and *Williamson* would also not disclose or suggest providing separated DSL signals to a first hot-swappable circuit board and providing separated SLIC signals to a second hot-swappable circuit board.

Further, Appellant submits that there is no motivation provided in any of the references themselves to combine *De Bruycker*, *Alaimo* and *Williamson*. It would be impermissible hindsight based on Appellant 's own disclosure to incorporate the access network with an integrated splitter in *De Bruycker* with telecommunication access device in *Alaimo* and the communications signal splitter and filter in *Williamson*. Particularly, there is no suggestion or motivation in *Alaimo* to implement one of the peripheral cards as a splitter. As a result, the combining of *De Bruycker*, *Alaimo* and *Williamson* is not a proper combination under §103.

Consequently, the Examiner has not established a prima facie case of obviousness, and the Examiner's rejection of claims 1, 6 and 14 under 35 U.S.C. §103(a) as being obvious over the combination of *De Bruycker*, *Alaimo* and *Williamson*.

Claims 2-5 depend from claim 1, claims 7-13 depend from claim 6, and claims 15 and 16. Given that dependent claims necessarily include the limitations of the claims from which they depend, Appellant submits that the invention as claimed in claims 2-7, 9-16, 18, 19 and 21-23 are similarly patentable over the combination of *De Bruycker*, *Alaimo* and *Williamson*.

For the forgoing reasons, Appellant submits that the Examiner has failed to search and find a printed publication or patent that discloses the claimed invention as set forth in MPEP § 706.02(a).

Thus, the Examiner erred in rejecting claims 1-4 and 7-23 under 35 U.S.C. § 103(a).

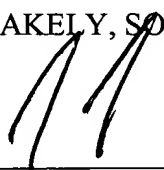
### **VIII. CONCLUSION**

Appellant respectfully submits that all the appealed claims in this application are patentable and request that the Board of Patent Appeals and Interferences overrule the Examiner and direct allowance of the rejected claims.

This brief is submitted, along with a check for \$500.00 to cover the appeal fee for one other than a small entity as specified in 37 C.F.R. § 1.17(c). Please charge any shortages and credit any overpayment to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN



Date: June 12, 2006

---

Mark L. Watson  
Attorney for Appellant  
Reg. No. 46,322

12400 Wilshire Boulevard  
Seventh Floor  
Los Angeles, CA 90025-1030  
(303) 740-1980

**IX. APPENDIX OF CLAIMS (37 C.F.R. § 1.192(c)(9))**

1. A method of providing a digital subscriber line service and a plain old telephone service comprising:

connecting a communication I/O line to a chassis;

providing the digital subscriber line service onto the communication I/O line using a first circuit board in the chassis;

providing the plain old telephone service on the communication I/O line using a second circuit board in the chassis; and

splitting the digital subscriber line service from the plain old telephone service via a third circuit board on the chassis having passive components, said splitting occurring within the chassis without requiring a splitter external to the chassis at a customer premises.

2. The method of claim 1 further comprising:

providing digital subscriber line service onto the communication I/O line using a hot-swappable first circuit board.

3. The method of claim 2 further comprising:

providing plain old telephone service onto the communication I/O line using a hot-swappable second circuit board.

4. The method of claim 3 further comprising:

using one or more transition circuit boards to provide a splitting function of separating first signals used for providing the digital subscriber line service from second signals for providing the plain old telephone service.

5. The method of claim 4 further comprising:  
using a low pass filter on the one or more transition circuit boards to filter out the  
first signals to provide the digital subscriber service; and  
using a high pass filter on the on or more transition circuit boards to filter out the  
second signals used to provide the plain old telephone service.
6. A method of splitting digital subscriber line (DSL) signals and subscriber line  
interface card (SLIC) signals comprising:  
providing the DSL signals to a first circuit board; and  
providing the SLIC signals to a second circuit board;  
using passive components on a third circuit board to separate the DSL signals and the  
SLIC signals; wherein said passive components separate the DSL signals and the  
SLIC signals within a chassis without requiring a splitter external to the chassis at  
a customer premises.
7. The method of claim 6, wherein the first circuit board and the second circuit  
board are plugged into a first side of a midplane circuit board, and wherein the passive  
components are on a transition circuit board plugged into a second side of the midplane  
circuit board.
8. The method of claim 7, wherein the first circuit board and the second circuit  
board are hot-swappable.
9. The method of claim 8, wherein a network data line is attached to the transition  
circuit board.

10. The method of claim 6 further comprising:  
using a low pass filter to provide the SLIC signals to the second circuit board; and  
using a high pass filter to provide the DSL signals to the first circuit board.
11. The method of claim 10, wherein the low pass filter and the high pass filter are on a transition circuit board.
12. The method of claim 11, wherein the transition circuit board is plugged into one side of a midplane circuit board and the first circuit board and the second circuit board are plugged into a second side of the midplane circuit board.
13. The method of claim 12, wherein the first circuit board and the second circuit board are hot-swappable.
14. A method of handling digital subscriber line (DSL) signals and subscriber line interface card (SLIC) signals comprising:  
receiving the DSL signals and the SLIC signals;  
separating the DSL signals from the signals in one more transition cards having primarily passive components;  
providing the DSL signals to a first hot-swappable circuit board; and  
providing the SLIC signals to a second hot-swappable circuit board.
15. The method of claim 14 further comprising:  
plugging the first hot-swappable circuit board and the second hot-swappable circuit board into a first side of a midplane board.
16. The method of claim 15 further comprising:

plugging the one or more transition cards into a second side of the midplane board.



**X. EVIDENCE APPENDIX**

None.

**XI. RELATED PROCEEDINGS APPENDIX**

None.

# FEE TRANSMITTAL for FY 2005

Patent fees are subject to annual revision.

## Complete if Known

Application Number	09/737,999
Filing Date	December 14, 2000
First Named Inventor	Robert D. Wachel
Examiner Name	Jamal, Alexander
Art Unit	2643
Attorney Docket No.	42390P9125

☐ Applicant claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT (\$) 500.00

## METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_

☒ Deposit Account Deposit Account Number: 02-2666 Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee  
☒ Charge any additional fee(s) or underpayment of fee(s) ☒ Credit any overpayments  
under 37 CFR §§ 1.16, 1.17, 1.18 and 1.20.

## FEE CALCULATION

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
2053	130	2053	130	Non-English specification	
1251	120	2251	60	Extension for reply within first month	
1252	450	2252	225	Extension for reply within second month	
1253	1,020	2253	510	Extension for reply within third month	
1254	1,590	2254	795	Extension for reply within fourth month	
1255	2,160	2255	1,080	Extension for reply within fifth month	
1401	500	2401	250	Notice of Appeal	
1402	500	2402	250	Filing a brief in support of an appeal	500.00
1403	1,000	2403	500	Request for oral hearing	
1451		2451		Petition to institute a public use proceeding	
1460	130	2460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
1809	790	1809	395	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR § 1.129(b))	
Other fee (specify) _____					
SUBTOTAL (2)					(500.00)

## SUBMITTED BY

Name (Print/Type)	Mark L. Watson	Registration No. (Attorney/Agent)	46,322	Telephone	(303) 740-1980
Signature		Date	06/12/06		